

1.(Amended) A composition comprising a transesterified fatty acid ester, a fatty acid ester with a carbon number of eight to twenty-two being transesterified through reaction with a compound containing a hydroxyl functional group in the presence of an inorganic, non-halide acid, said acid remaining with the composition.

91 2.(Amended) A composition comprising reaction products from a reaction of a fatty acid ester with a carbon number of eight to eighteen with a compound containing a hydroxyl functional group in the presence of an inorganic, non-halide acid, the reaction products including a transesterified fatty acid ester, said acid remaining with the composition.

92 14.(Amended) The composition of claim 1 or 2 wherein the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic ac, organic sulfonic acids,] and sulfuric acid[, acetic acid, sulfosalicylic acid and phenol sulfonic acid].

27.(Amended) The composition of claim 1 or 2 wherein

the fatty acid ester is a vegetable oil; and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

93 28.(Amended) The composition of claim 1 or 2 wherein

the fatty acid ester is a vegetable oil;

the compound containing a hydroxyl functional group is selected from the group consisting essentially of methyl alcohol, ethyl alcohol, butyl alcohol, pentyl alcohol, hexyl alcohol, heptyl alcohol, octyl alcohol, nonyl alcohol, decyl alcohol, dodecanol, isopropyl alcohol, n-propyl alcohol, glycerol, substituted alcohols and multiple hydroxy functional group alcohols; and

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the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

30.(Amended) The composition of claim 1 or 2 wherein

the fatty acid ester has a carbon number of 18, and

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the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

31.(Amended) The composition of claim 1 or 2 wherein

the fatty acid ester has a carbon number of 18;

the compound containing a hydroxyl functional group is selected from the group consisting essentially of methyl alcohol, ethyl alcohol, butyl alcohol, pentyl alcohol, hexyl alcohol, heptyl alcohol, octyl alcohol, nonyl alcohol, decyl alcohol, dodecanol, isopropyl alcohol, n-propyl alcohol, glycerol, substituted alcohols and multiple hydroxy functional group alcohols; and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

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43.(Amended) The composition of claim 38 wherein the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] and sulfuric acid[, acetic acid,

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sulfosalicylic acid, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

50.(Amended) The composition of claim 38 wherein

the fatty acid ester is castor oil; and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

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51.(Amended) The composition of claim 38 wherein

the fatty acid ester is castor oil;

the compound containing a hydroxyl functional group is selected from the group consisting essentially of methyl alcohol, ethyl alcohol, butyl alcohol, pentyl alcohol, hexyl alcohol, heptyl alcohol, octyl alcohol, nonyl alcohol, decyl alcohol, dodecanol, isopropyl alcohol, n-propyl alcohol, glycerol, substituted alcohols and multiple hydroxy functional group alcohols; and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

53.(Amended) The composition of claim 38 wherein

the fatty acid ester has a carbon number of 18, and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic

acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

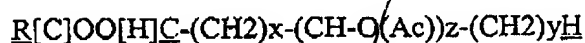
54.(Amended) The composition of claim 38 wherein

the fatty acid ester has a carbon number of 18;

the compound containing a hydroxyl functional group is selected from the group consisting essentially of methyl alcohol, ethyl alcohol, butyl alcohol, pentyl alcohol, hexyl alcohol, heptyl alcohol, octyl alcohol, nonyl alcohol, decyl alcohol, dodecanol, isopropyl alcohol, n-propyl alcohol, glycerol, substituted alcohols and multiple hydroxy functional group alcohols; and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

55.(Amended) A transesterified fatty acid compound having the formula:



wherein

Ac is an inorganic, non-halide acid functional group;

x = 7, 11 or 12

R=aryl group

x + y gives a resultant from 10 to 20; and

z is from 1 to 2

57.(Amended) The compound of claim 55 wherein Ac is H[2]SO[4]₃.

58.(Amended) A process for lubrication of a lubricant-dependant system with a fluid comprising adding an effective amount of a transesterified fatty acid ester to the lubricant-dependant

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system in the fluid, the transesterified fatty acid ester resulting from the reaction of a fatty acid ester having a carbon number between eight and twenty-two with a compound containing a hydroxyl functional group in the presence of an acid, said acid remaining with the composition.

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61.(Amended) A process for inhibition of corrosion for a corrosion-susceptible mechanical system comprising contacting the corrosion-susceptible mechanical system with a fluid having an effective amount of a transesterified fatty acid ester, the transesterified fatty acid ester resulting from the reaction of a fatty acid ester having a carbon number between eight and twenty-two with a compound containing a hydroxyl functional group in the presence of an inorganic, non-halide acid.

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75.(Amended) The process of claim 58, 59, 60, 61 or 62 wherein the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

88.(Amended) The process of claim 58, 59, 60, 61 or 62 wherein

the fatty acid ester is a vegetable oil; and

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the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

89.(Amended) The process of claim 58, 59, 60, 61 or 62 wherein

the fatty acid ester is a vegetable oil;

the compound containing a hydroxyl functional group is selected from the group consisting essentially of methyl alcohol, ethyl alcohol, butyl alcohol, pentyl alcohol, hexyl alcohol, heptyl alcohol, octyl alcohol, nonyl alcohol, decyl alcohol, dodecanol, iso-

propyl alcohol, n-propyl alcohol, glycerol, substituted alcohols and multiple hydroxy functional group alcohols; and

a 10 the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

91.(Amended) The process of claim 58, 59, 60, 61 or 62 wherein

the fatty acid ester has a carbon number of 18, and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].

a 11 92.(Amended) The process of claim 58, 59, 60, 61 or 62 wherein[0];

the fatty acid ester has a carbon number of 18;

the compound containing a hydroxyl functional group is selected from the group consisting essentially of methyl alcohol, ethyl alcohol, butyl alcohol, pentyl alcohol, hexyl alcohol, heptyl alcohol, octyl alcohol, nonyl alcohol, decyl alcohol, dodecanol, isopropyl alcohol, n-propyl alcohol, glycerol, substituted alcohols and multiple hydroxy functional group alcohols; and

the acid is selected from phosphoric acid, [muriatic acid,] nitric acid, phosphonic acid, phosphorus acid, [chloro sulfonic acid, dodecylbenzene sulfonic acid, organic sulfonic acids,] sulfuric acid, [acetic acid, sulfosalicylic acid, aromatic sulfonic acids,] and sulfamic acid[, gluconic acid, citric acid, formic acid, hydroxy acetic acid and hydroxy benzoic acids].